

REMARKS

Claims 1-13 are pending in the application. Of these, claims 1, 6 and 9 are rejected and claims 2-5, 7, 8 and 10-13 are objected to.

Claims 1, 6 and 9 are rejected under 35 U.S.C. § 102(e) as being anticipated by Zhang et al (U.S. Publication No. 2002/0010938). The Applicant respectfully traverses the rejection.

Claim 1 recites, *inter alia*, a bit rate control method comprising:

“performing one of a back propagation model update and a self-organizing control based on the number of the inputted video frames after inter-coding the next video frame, and then performing the post-frame skip again”

Zhang discloses a resource allocation in a multi-stream IP network for optimized quality of service. Zhang discloses a resource allocation of multiple compressed AV streams delivered over the Internet that achieves end-to-end optimal quality through a multimedia streaming TCP-friendly transport (MSTFP) protocol that adaptively estimates the network bandwidth while smoothing the sending rate.

The Examiner rejects claim 1 because the Examiner alleges the performing of one of a back propagation model update and a self-organizing control based on the number of the inputted video frames after inter-coding the next video frame, and then performing the post-frame skip again feature is disclosed in Zhang in Paragraphs [0125]-[0126] (Office Action, page 2-3). However, the Applicant respectfully submits that these paragraphs make no mention of a self-organizing control as recited in claim 1. Paragraph [0125] discloses the updating of rate and distortion models. Paragraph [0126] discloses the timing and purpose of frame-skipping. Zhang does not disclose a self-organizing control or any equivalent in these paragraphs or throughout its disclosure.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." M.P.E.P § 2131 citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The Examiner has not established anticipation of claim 1 by Zhang as least because Zhang does not disclose a self-organizing control. Therefore, claim 1 is patentable.

Additionally, claim 1 recites, *inter alia*, a bit rate control method comprising:

"receiving the next video frame, and estimating a quantization parameter if the received video frame is not a first video object plane, and inter-coding the received video frame if the received video frame is a first video object plane;"

Zhang discloses a resource allocation in a multi-stream IP network for optimized quality of service. There is no determination of if the received video frame is not a first video object plane. The first video object plane is treated the same as other video object planes.¹

The Examiner rejects claim 1 because the Examiner alleges the receiving the next video frame and estimating quantization parameters of all the video frames or performing the self-organizing control in all the video frames feature is disclosed in Zhang in paragraph [0124] (Office Action, page 3). Paragraph [0124] discloses an Inter-coding module receiving initialized values from an pre-coding initialization module. Zhang does not disclose the determination of if the received video frame is not a first video object plane in this paragraph or throughout its disclosure. Therefore, claim 1 is patentable for this additional reason.

¹ Together with the number of bits spent in the previous time instant, the size and the occupancy of the encoder output buffer, the target rate and global buffer are then updated for each Video Object Plane frame at module 912. The output total target bits from the joint buffer control are allocated among each Video Object Plane at module 914 to yield the target bits for each individual object. (Zhang, paragraph [0082], Fig. 9).

Claims 2-5, which depend from claim 1, are patentable for at least the same reasons as claim 1.

Claim 6 recites a bit rate control apparatus comprising, *inter alia*:

“a determination unit for determining whether or not the received frame is a first video object plane.”

Zhang discloses a resource allocation in a multi-stream IP network for optimized quality of service. There is no determination unit for determining whether or not the received frame is a first video object plane. The first video object plane is treated the same as other video object planes.²

The Examiner rejects claim 6, but states the same grounds of rejection as claim 1 while claims 1 and 6 recite different limitations. (Office Action, page 2-3). Zhang does not disclose a determination unit for determining whether or not the received frame is a first video object plane. Therefore, claim 6 is patentable.

Claims 7-8, which depend from claim 6, are patentable for at least the same reasons as claim 6.

Claim 9 recites similar limitations as claim 1 and is patentable for analogous reasons as claim 1. Claims 10-13, which depend from claim 9, are patentable for at least the same reasons as claim 9.

Claims 2-5, 7-8, 10-13 are rejected as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base

² Together with the number of bits spent in the previous time instant, the size and the occupancy of the encoder output buffer, the target rate and global buffer are then updated for each Video Object Plane frame at module 912. The output total target bits from the joint buffer control are allocated among each Video Object Plane at module 914 to yield the target bits for each individual object. (Zhang, paragraph [0082], Fig. 9).

claim and any intervening claims. The Examiner is requested to hold the status of the allowable claims in abeyance until after the resolution of all the remaining issues related to patentability of the independent claims.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

Peter A. McKenna

by / Seok-Won Stuart Lee /

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

Seok-Won Stuart Lee
Limited Recognition No. L0212

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Date: June 26, 2007